

FIG. 1

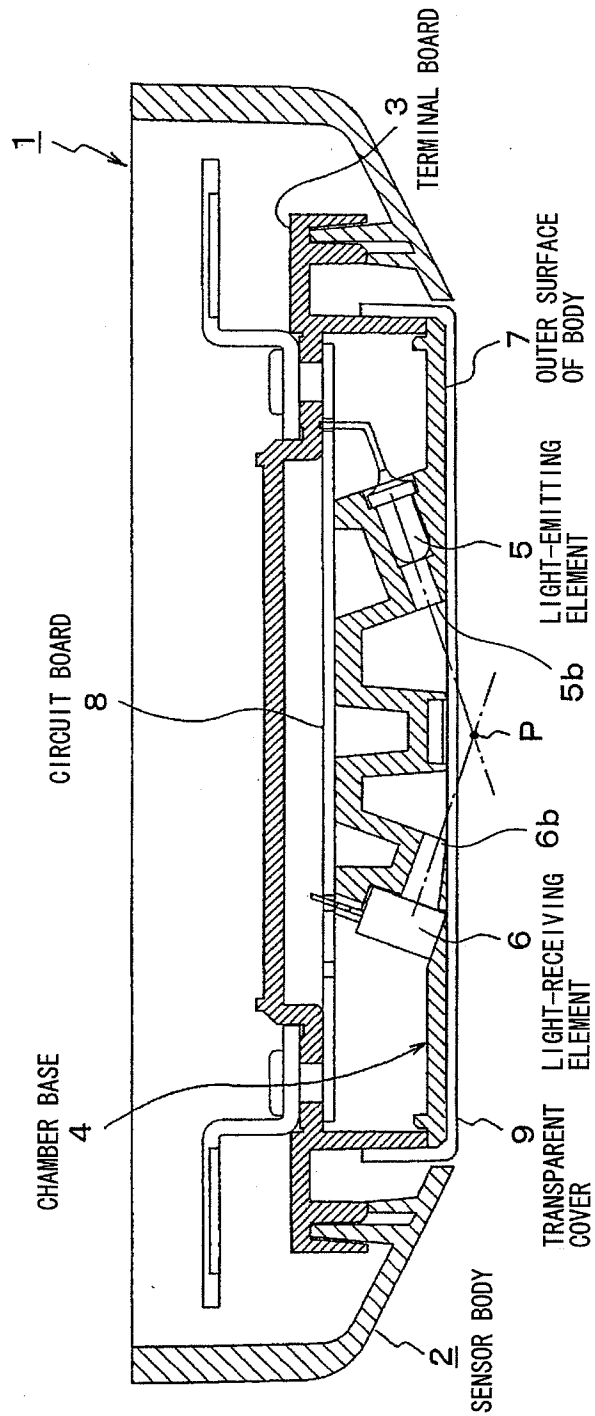
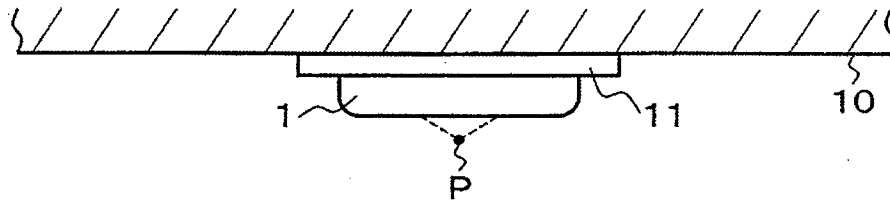


FIG. 2A



5

FIG. 2B

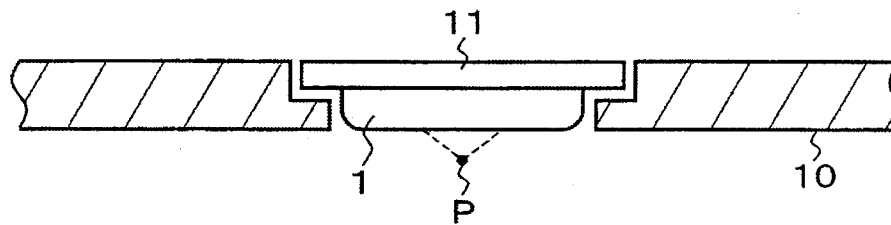


FIG. 3

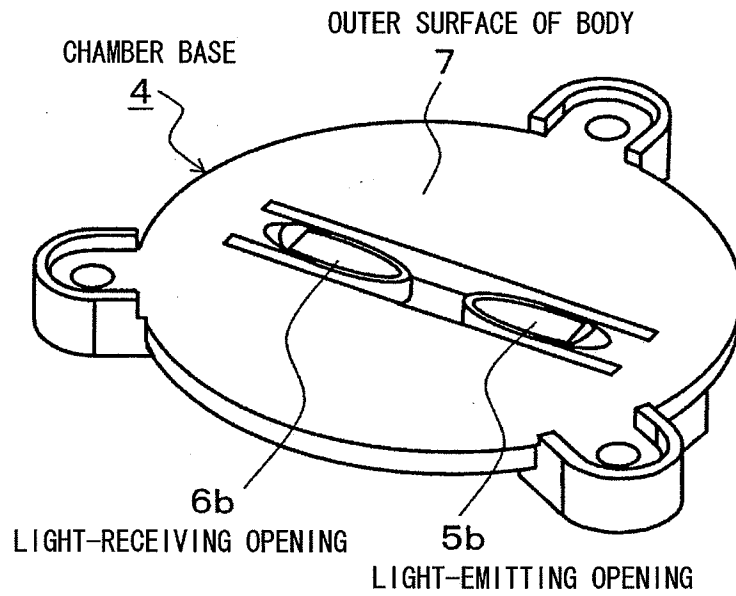


FIG. 4

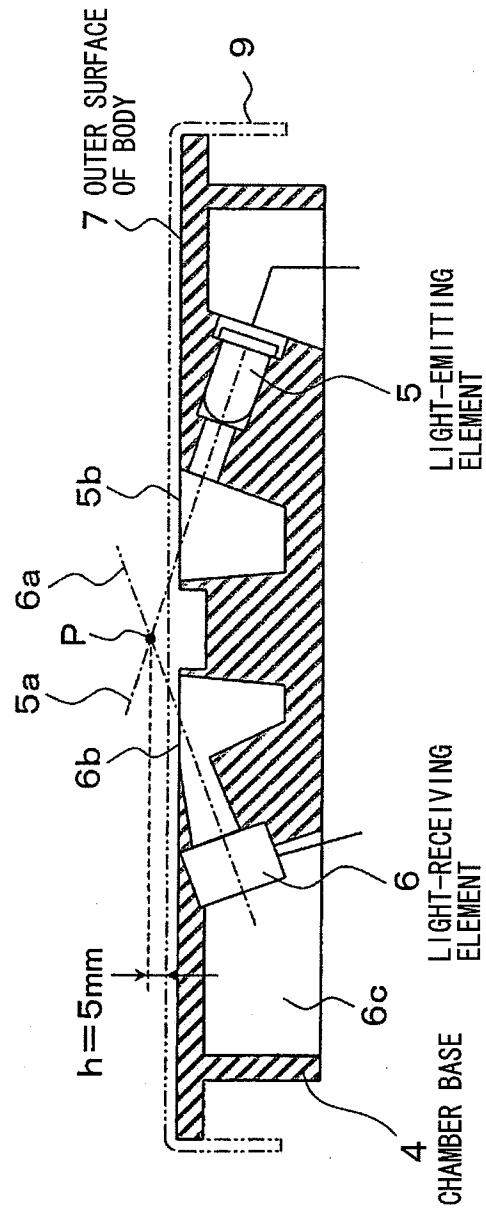


FIG. 5

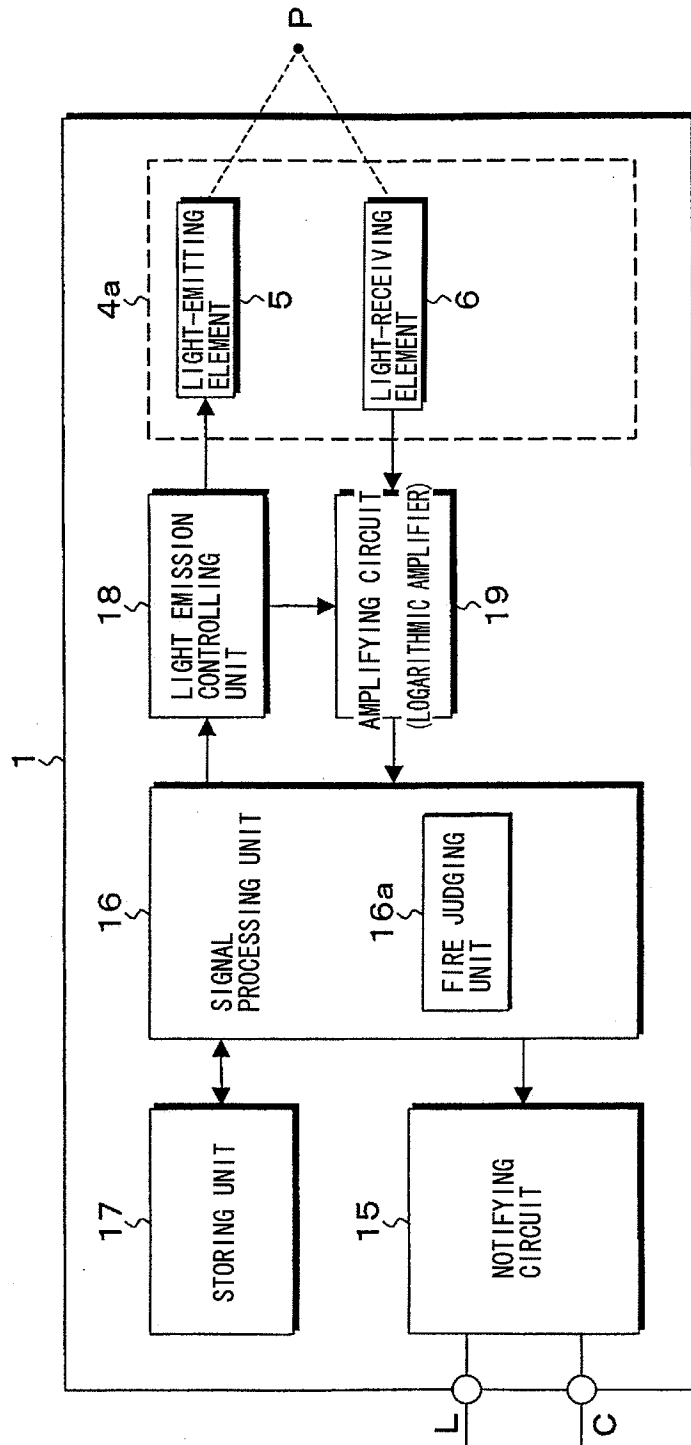


FIG. 6

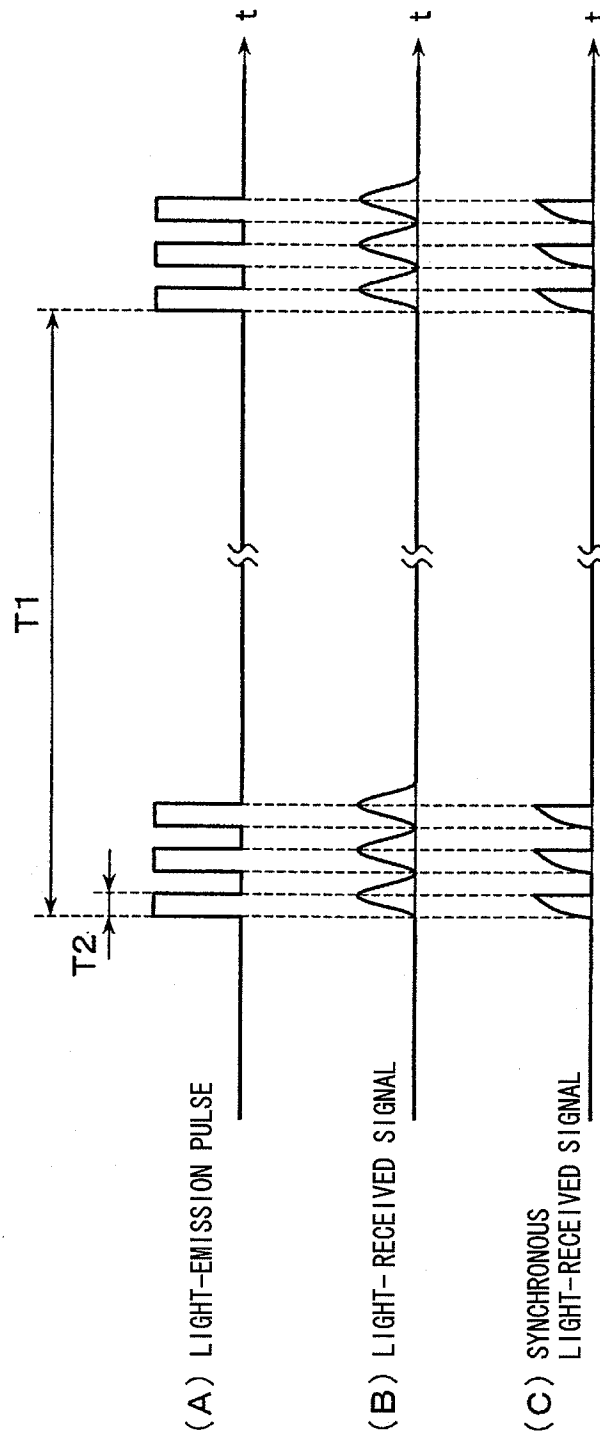


FIG. 7

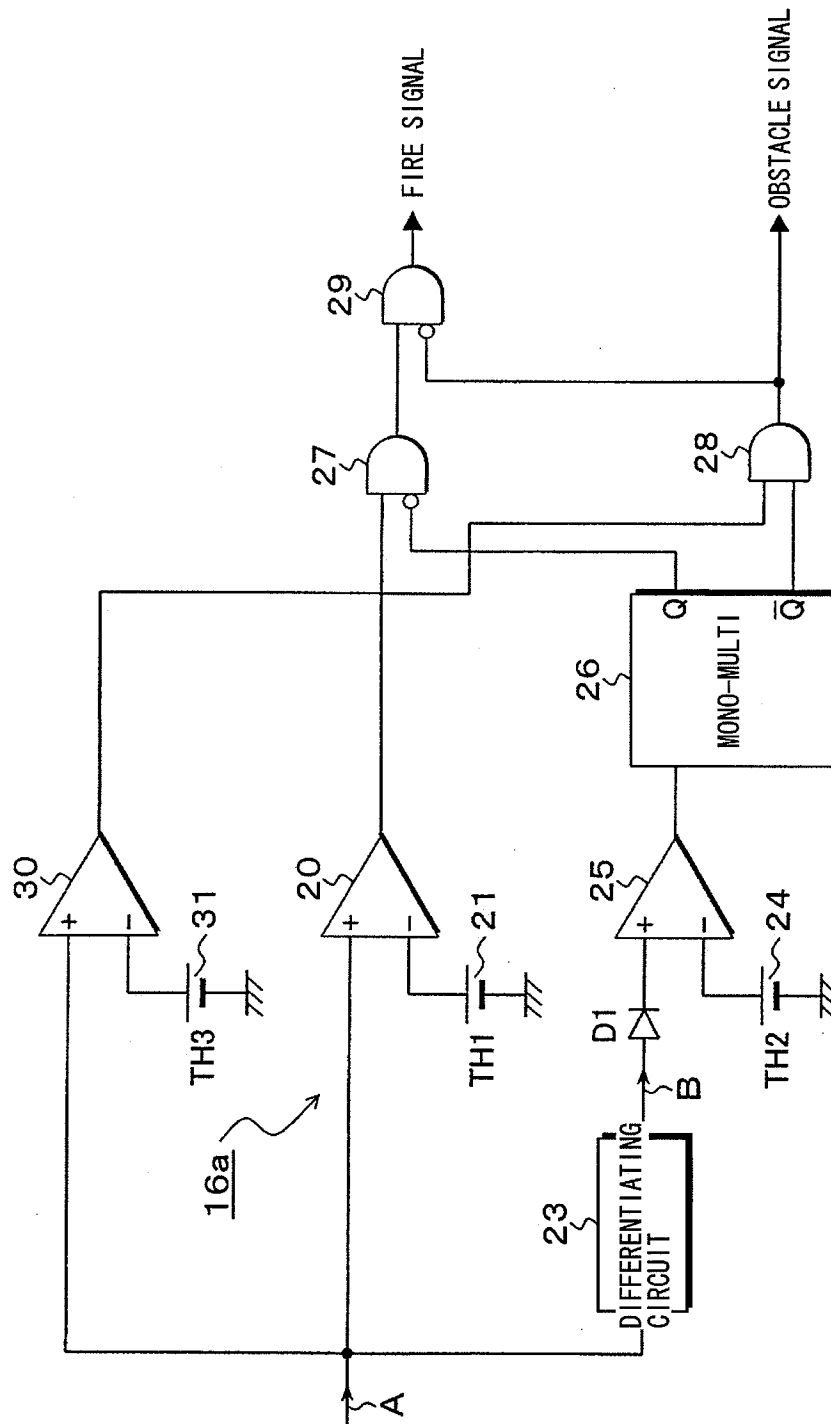


FIG. 8

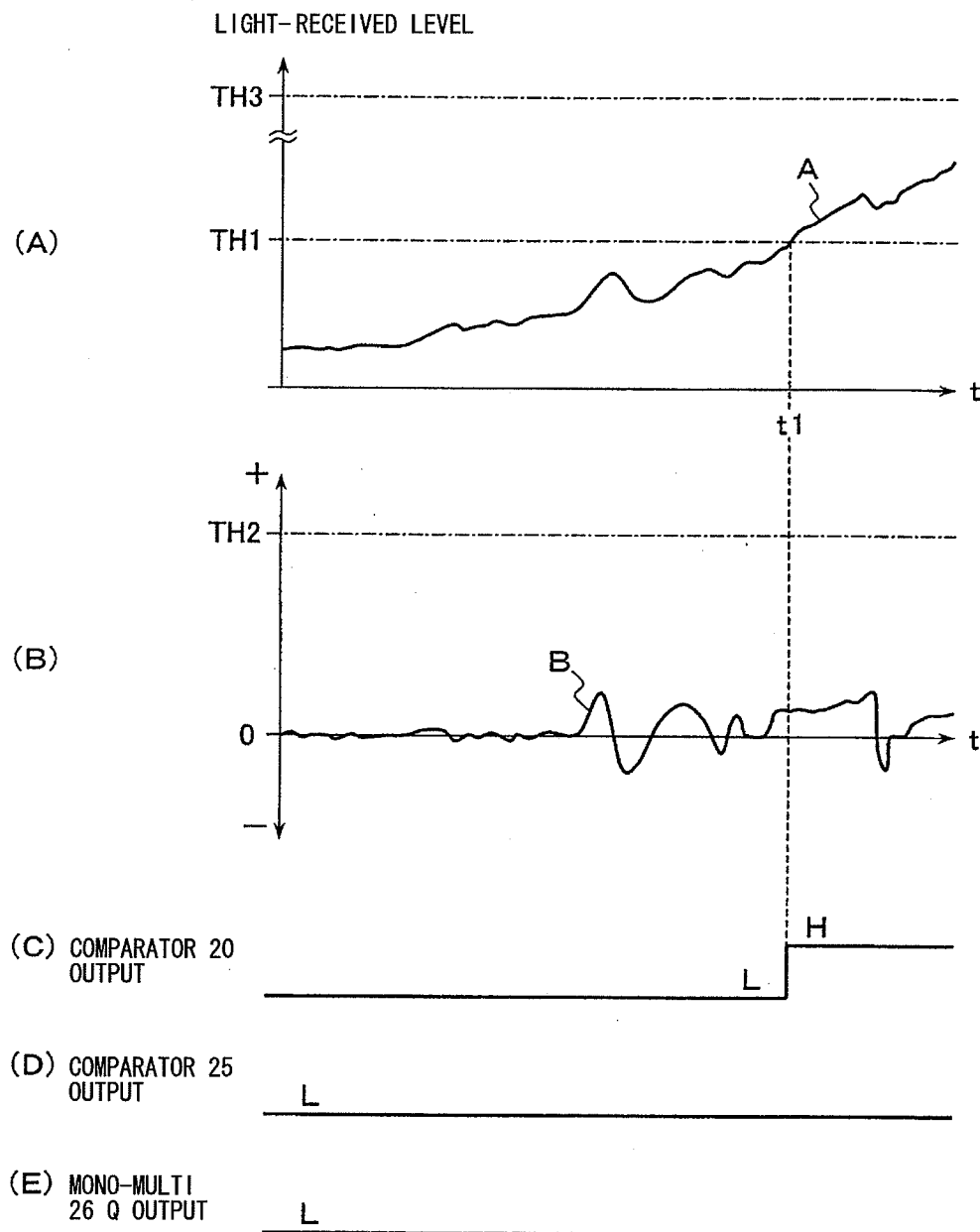


FIG. 9

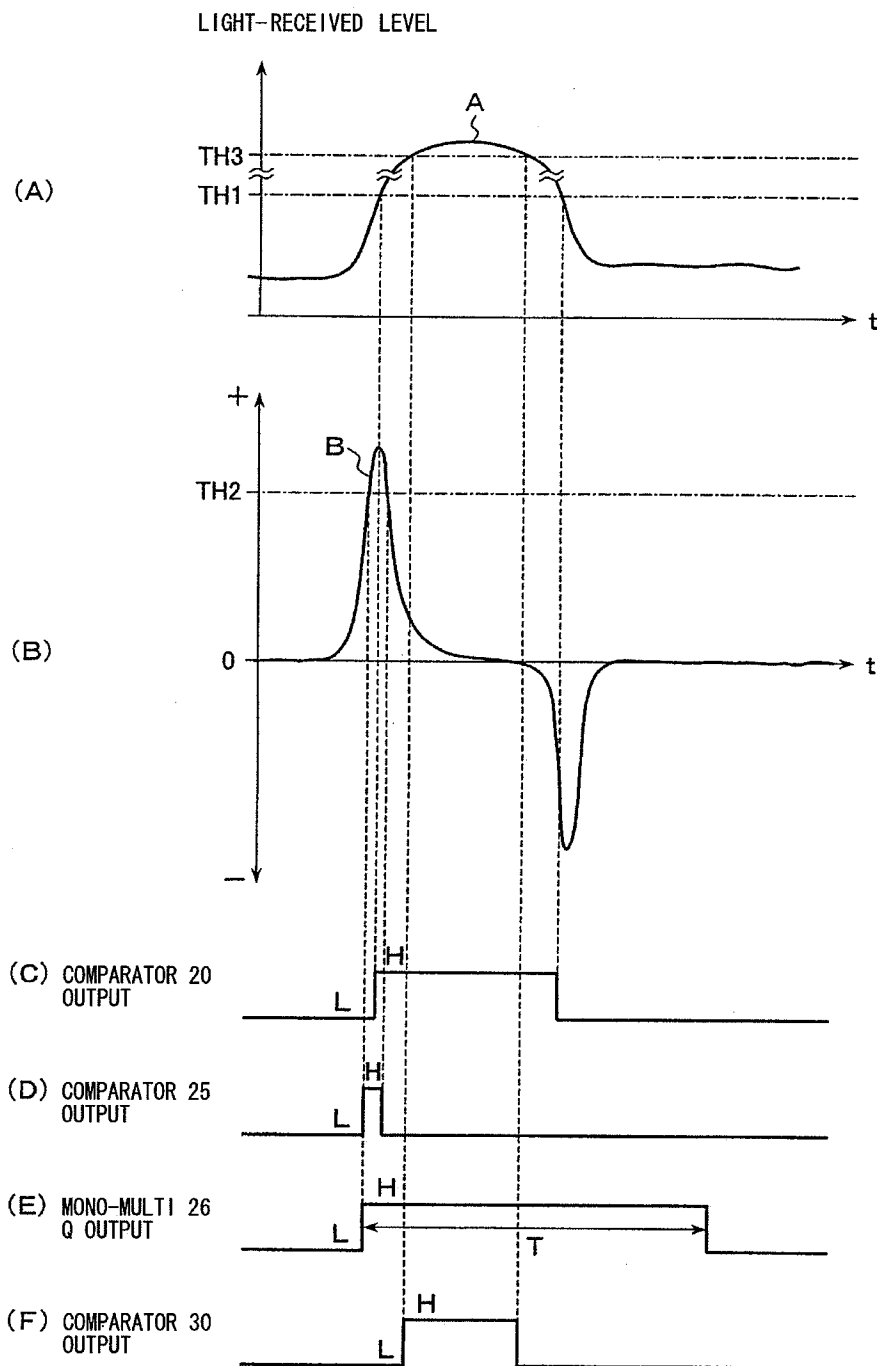


FIG. 10

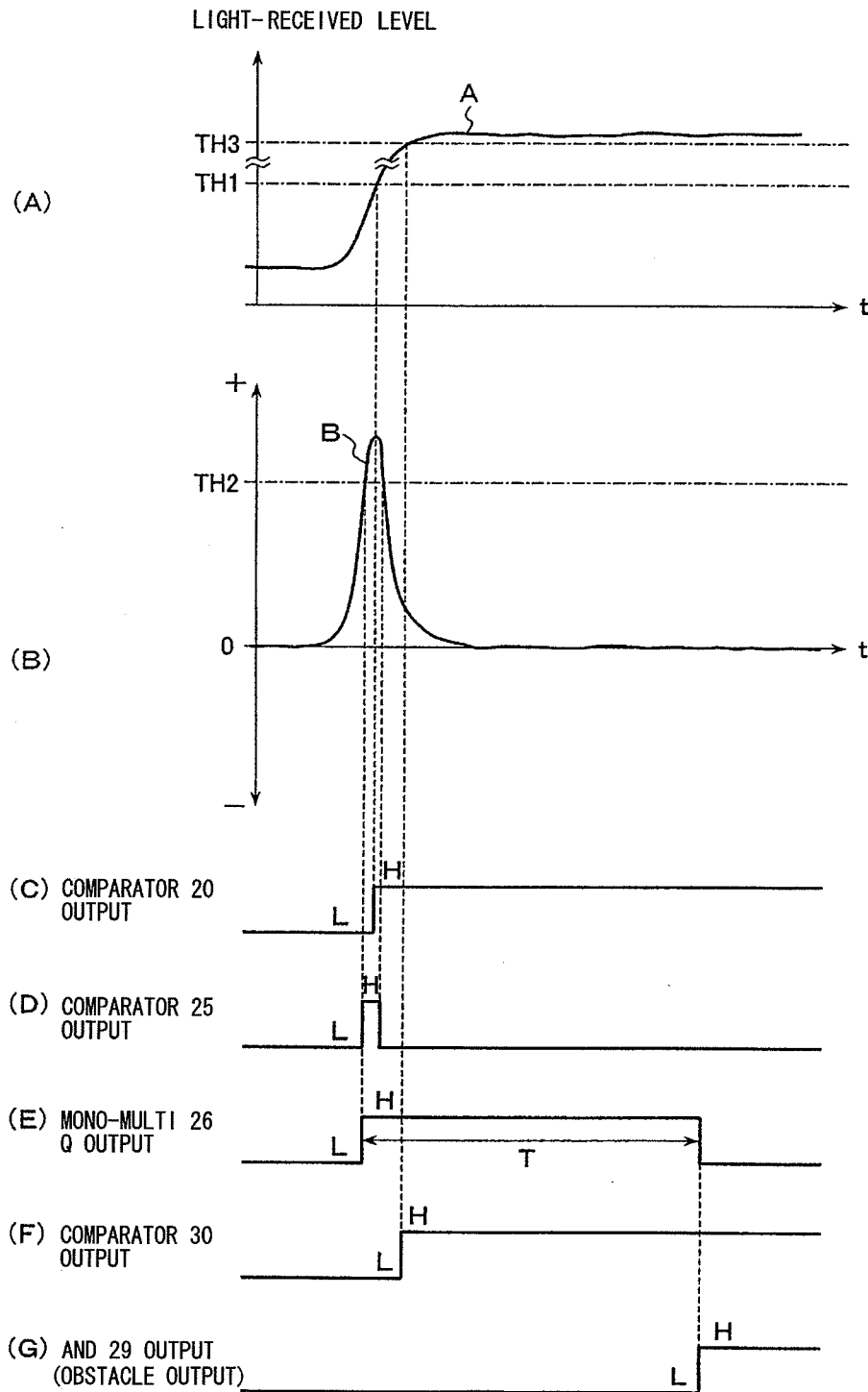


FIG. 11

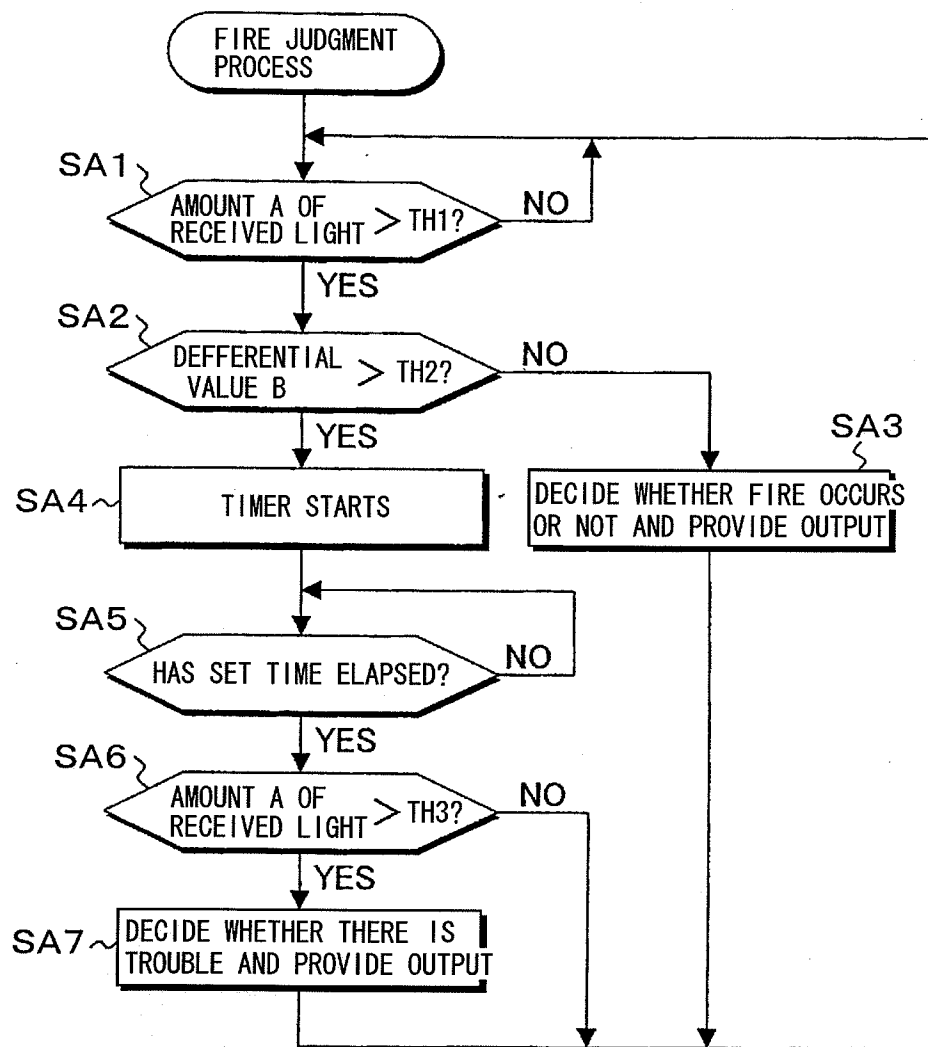


FIG. 12

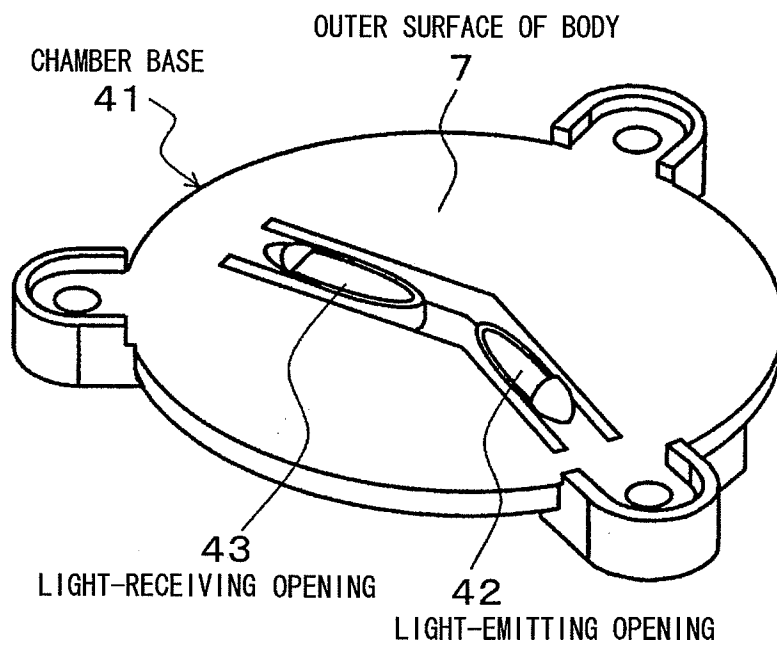
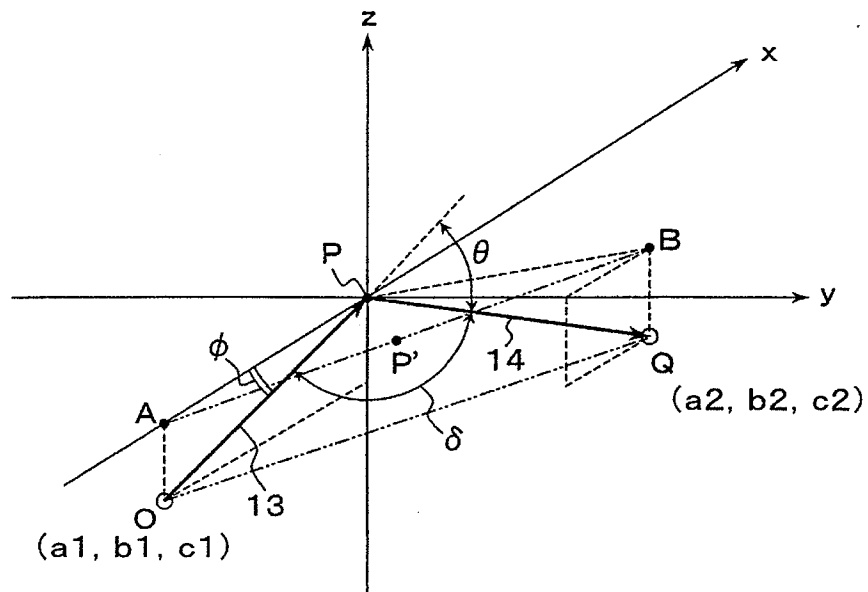


FIG. 13A



5

FIG. 13B

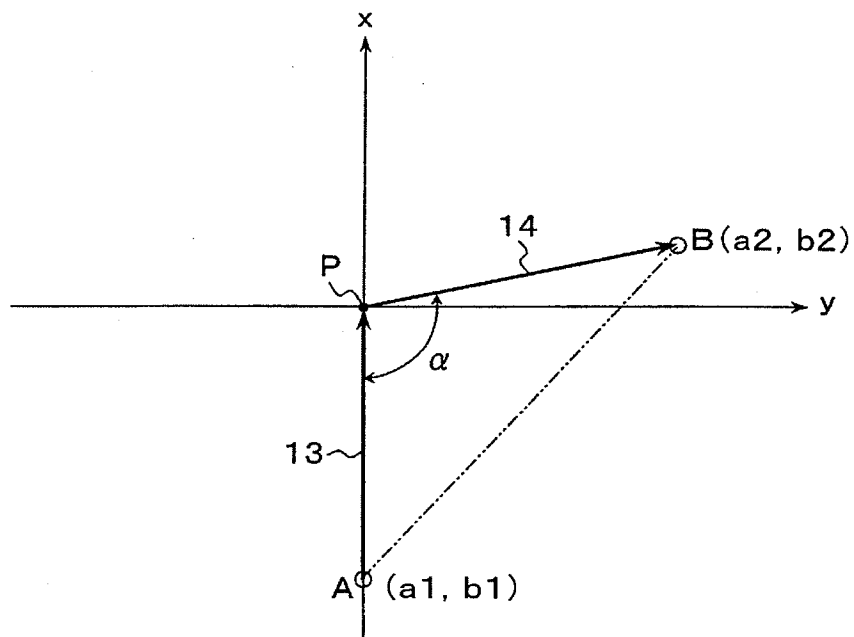
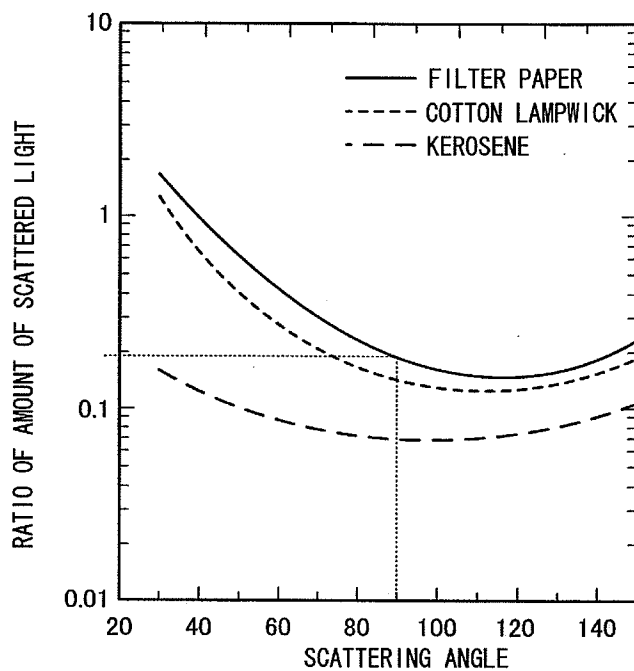


FIG. 14



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FIG. 15

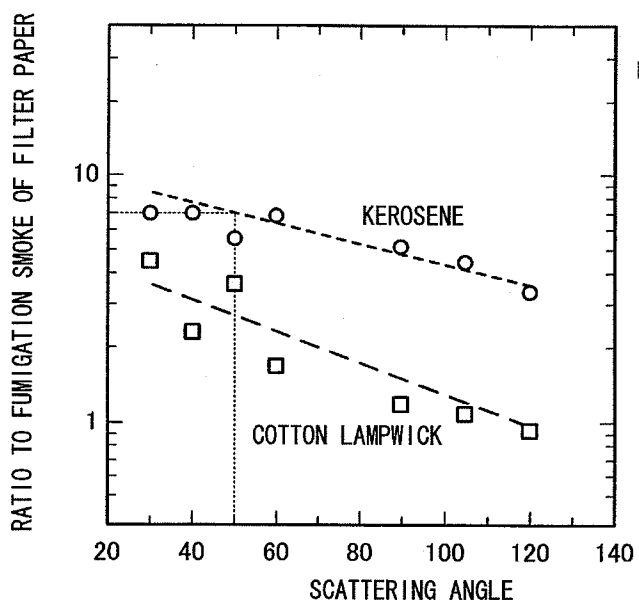


FIG. 16

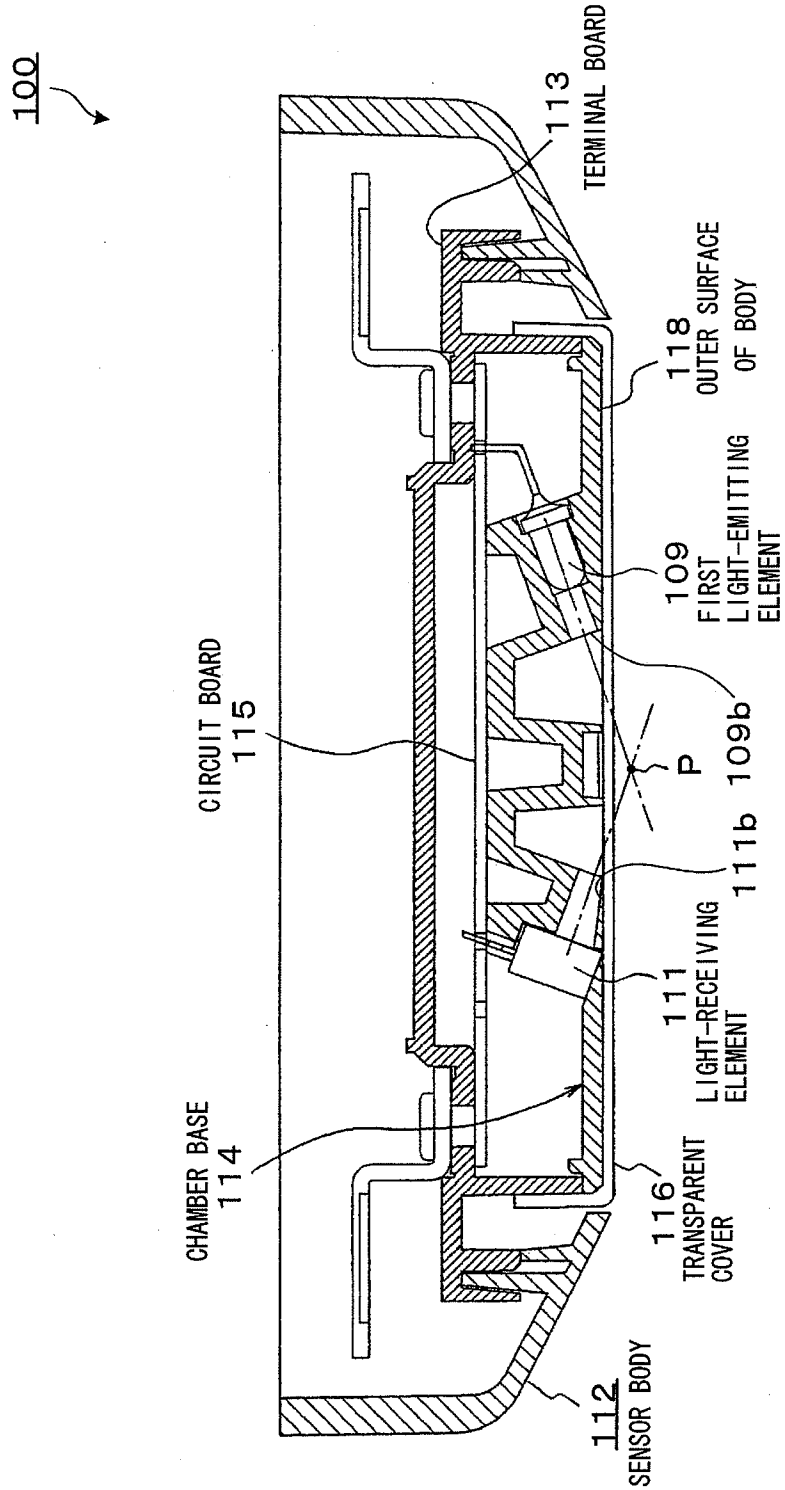


FIG. 17

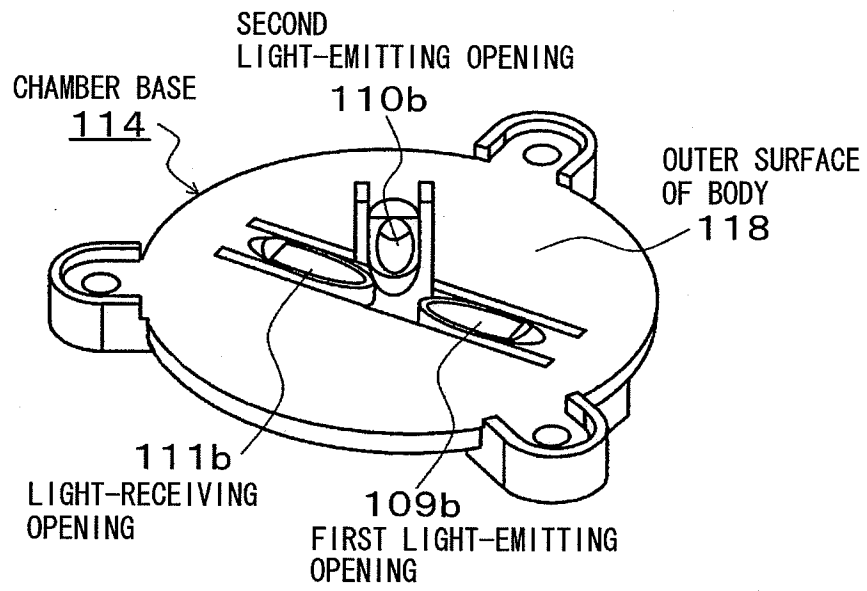


FIG. 18

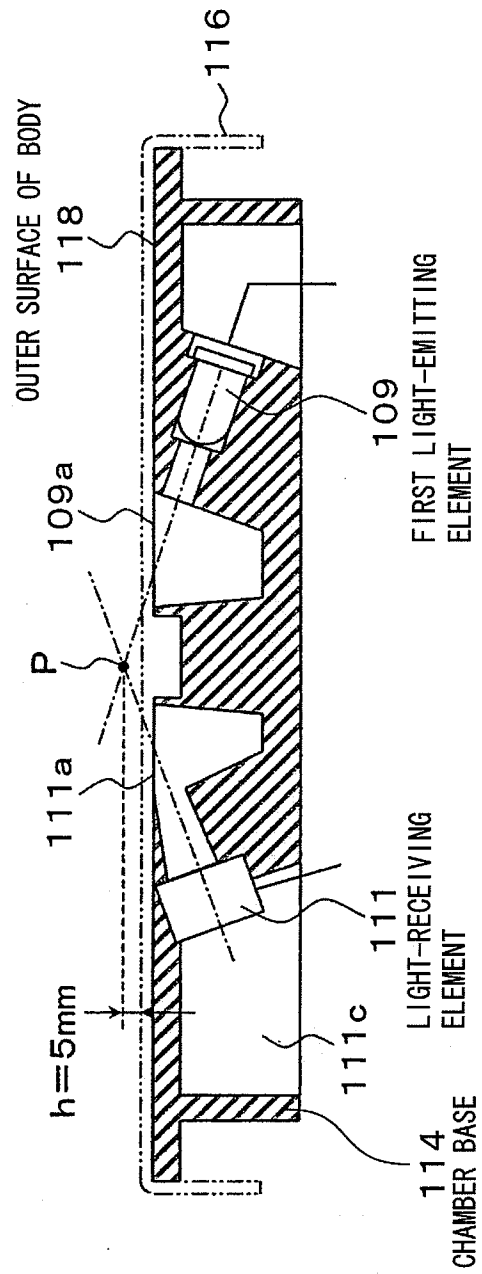


FIG. 19

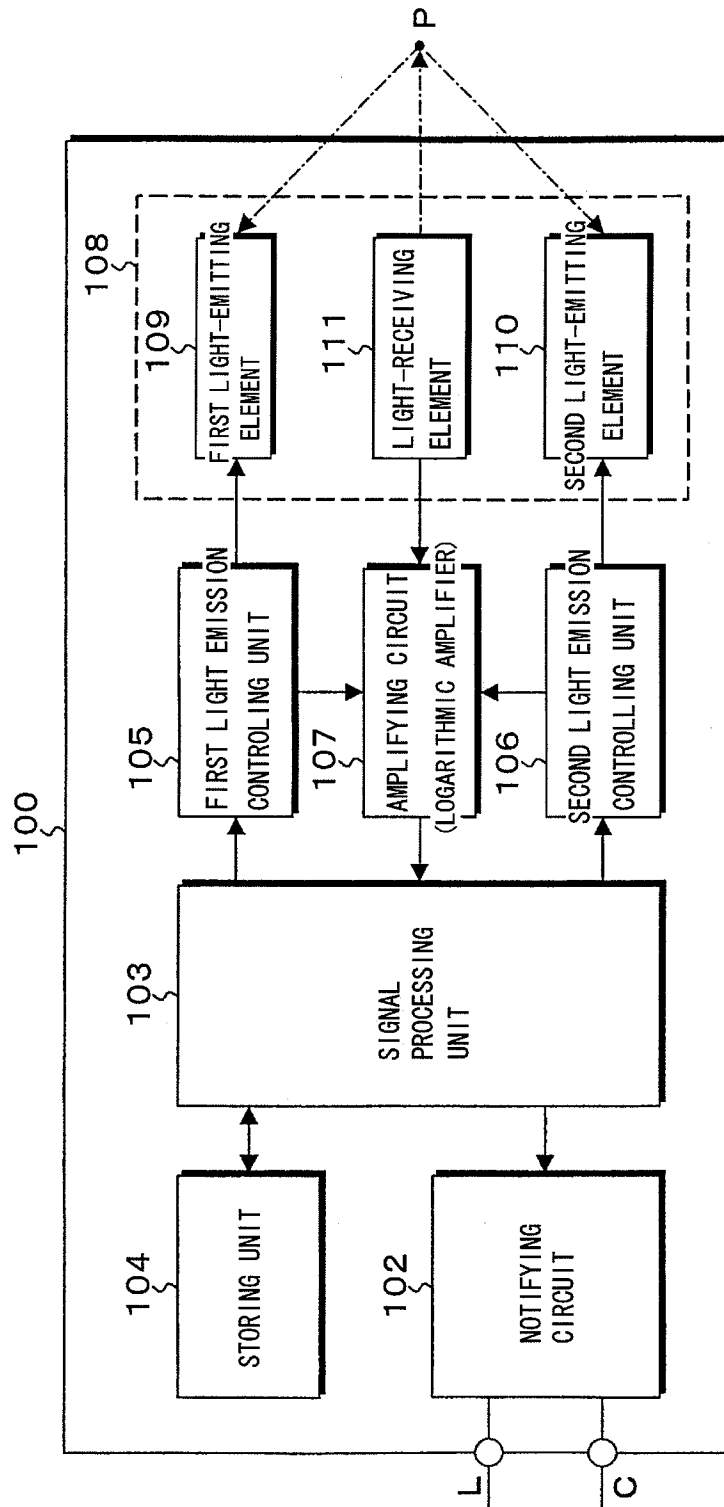


FIG. 20A

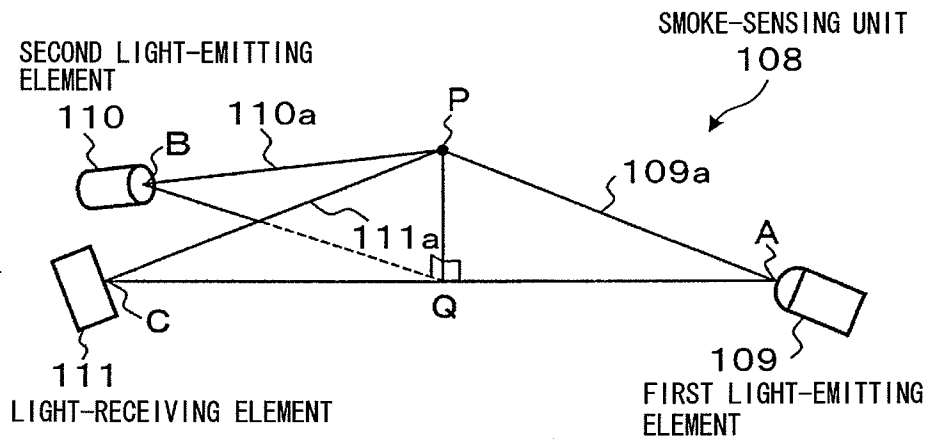


FIG. 20B

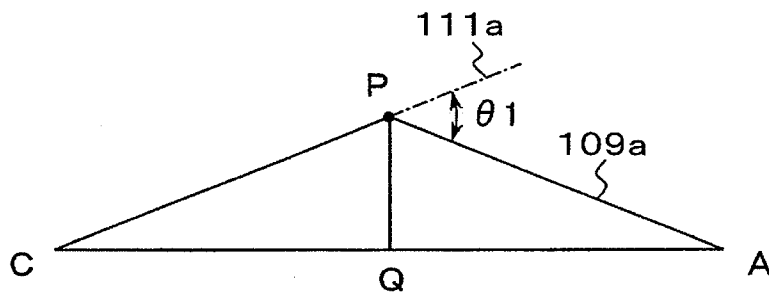


FIG. 20C

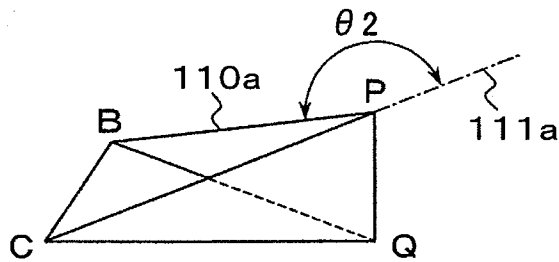
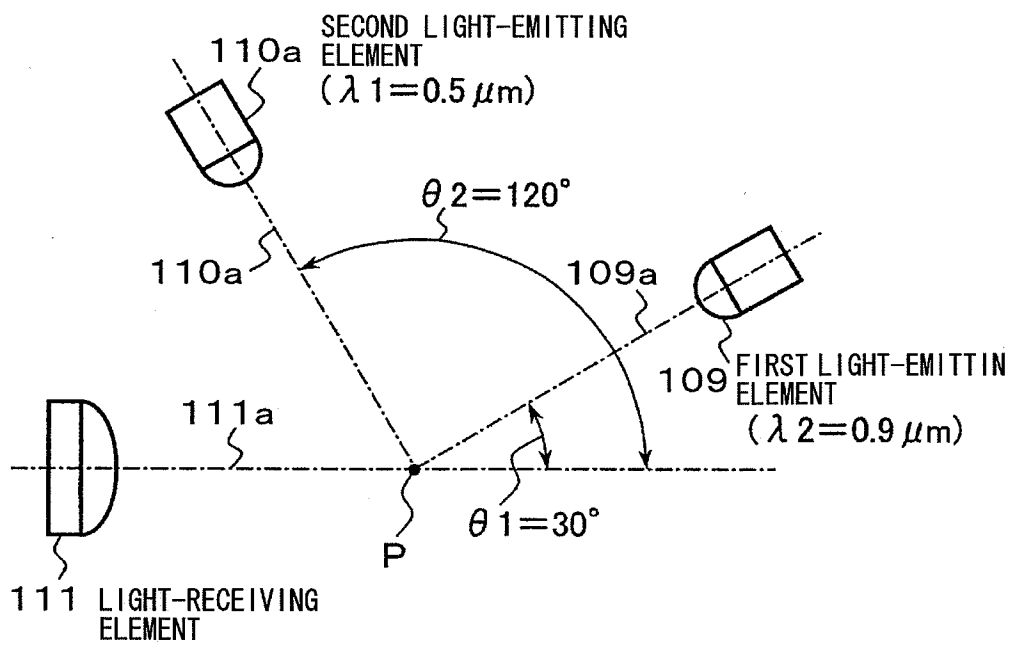


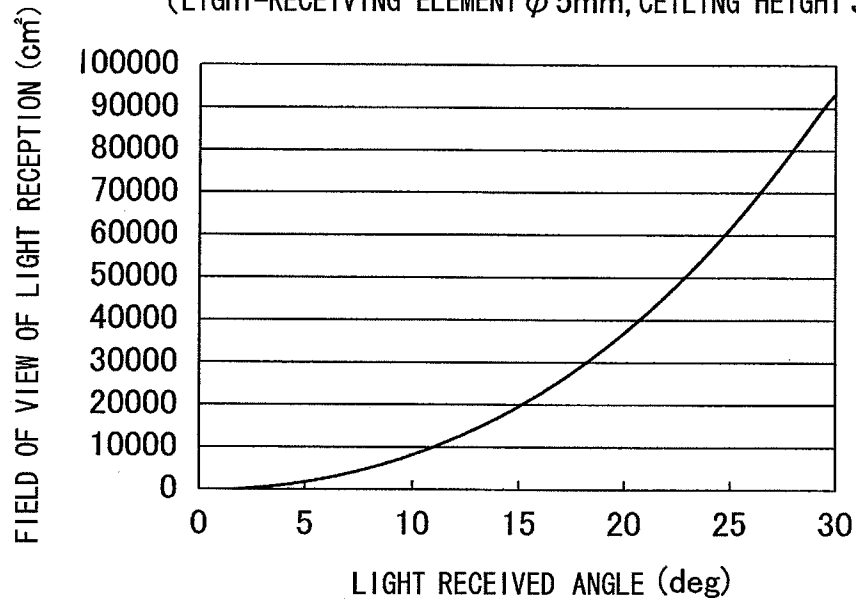
FIG. 21



F I G . 2 2

RELATION BETWEEN LIGHT-RECEIVED
ANGLE AND ANGLE OF FIELD OF VIEW

(LIGHT-RECEIVING ELEMENT ϕ 5mm, CEILING HEIGHT 3m)



F I G . 2 3

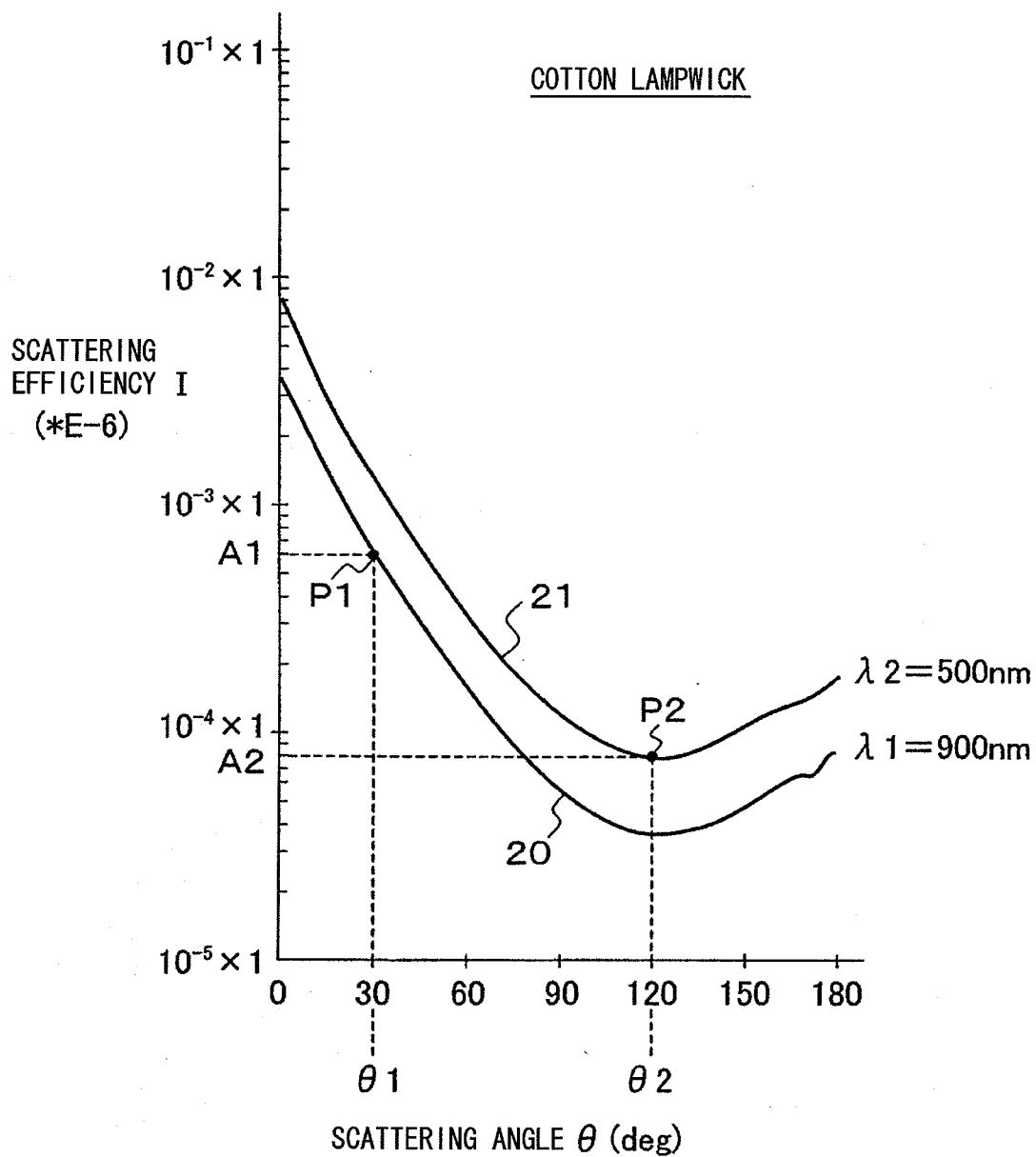
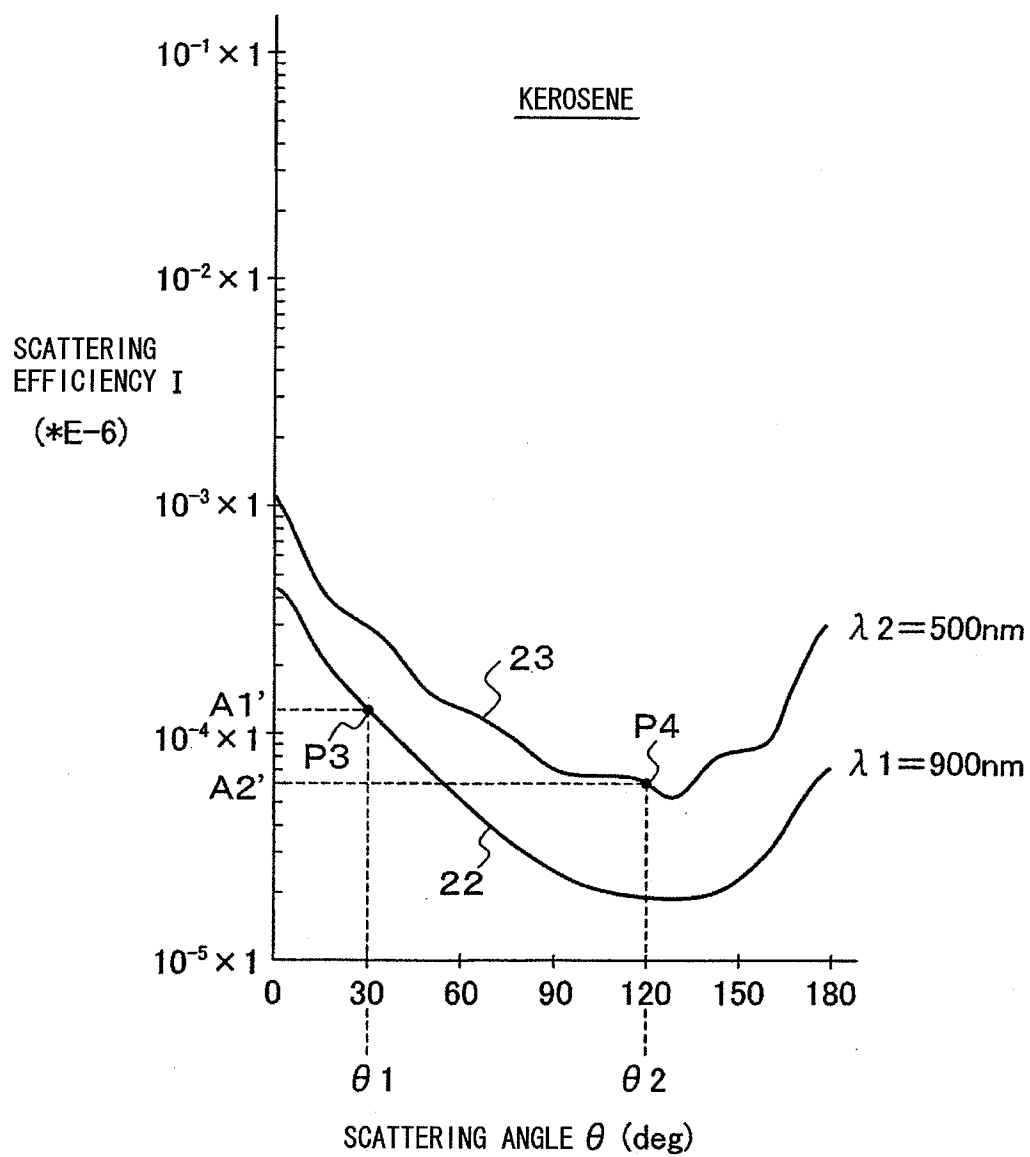


FIG. 24



F I G . 2 5

TYPE OF COMBUSTION MATERIAL	AMOUNT OF LIGHT - RECEIVED SIGNAL A1 FOR FIRST LIGHT-EMITTING ELEMENT	AMOUNT OF LIGHT - RECEIVED SIGNAL A2 FOR SECOND LIGHT EMITTING ELEMENT	RATIO $R=A1/A2$
FUMIGATION SMOKE (COTTON LAMPWICK)	6.0E-04	7.5E-05	8.0
COMBUSTION SMOKE (KEROSENE)	1.2E-04	5.3E-05	2.3

FIG. 26

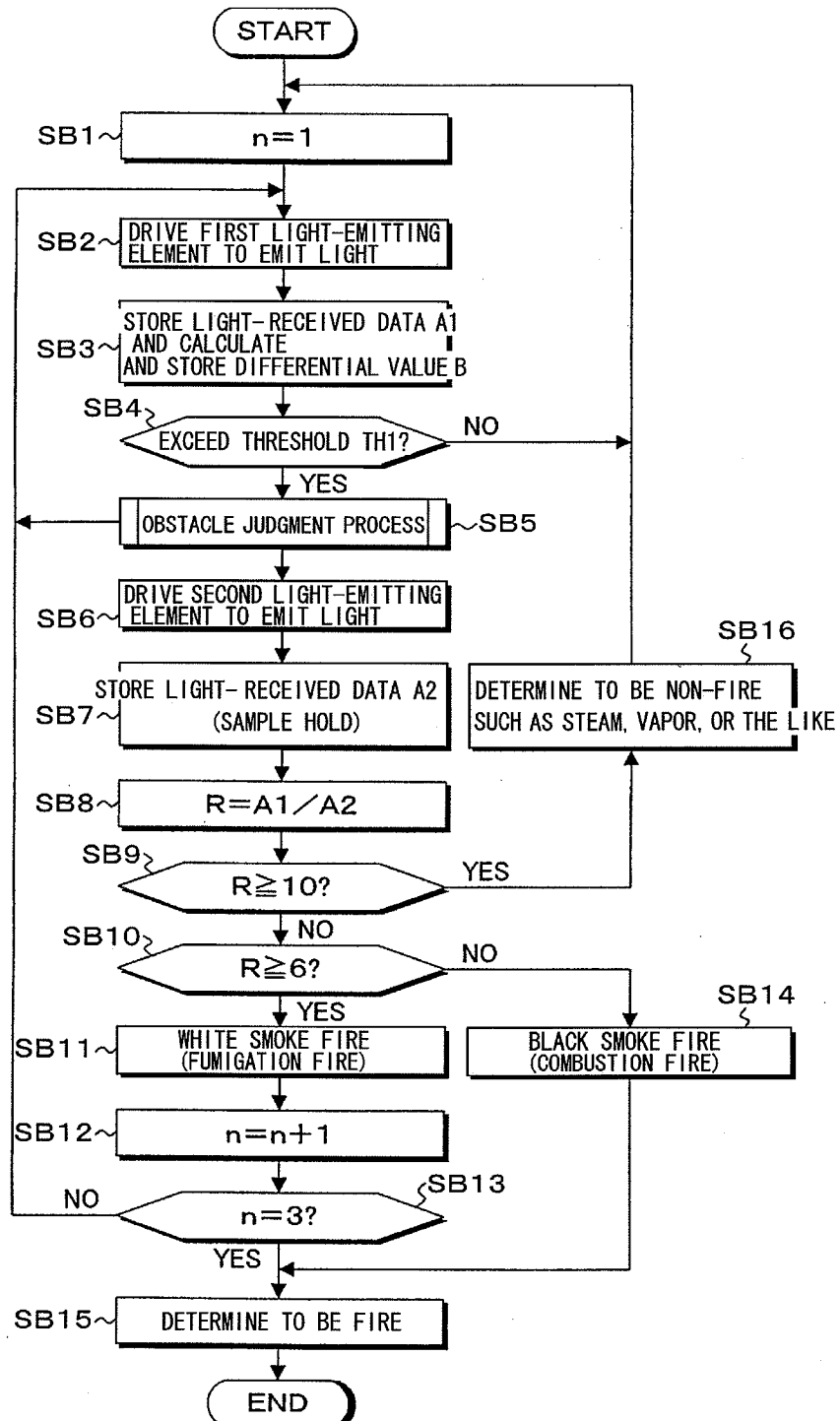


FIG. 27

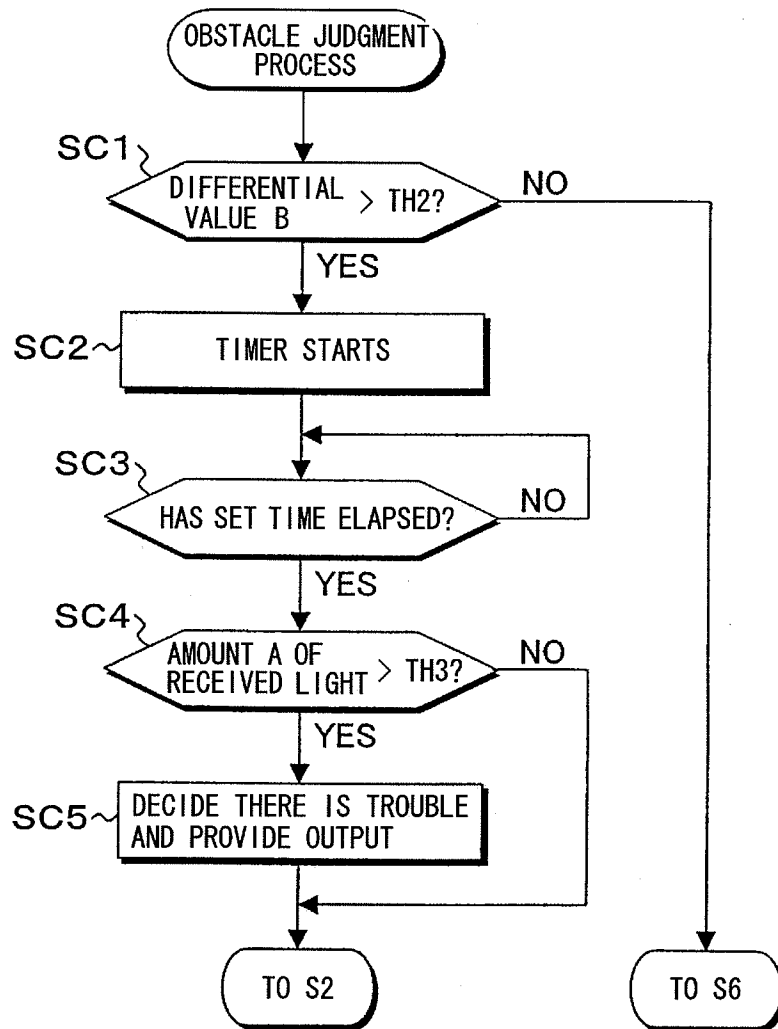


FIG. 28

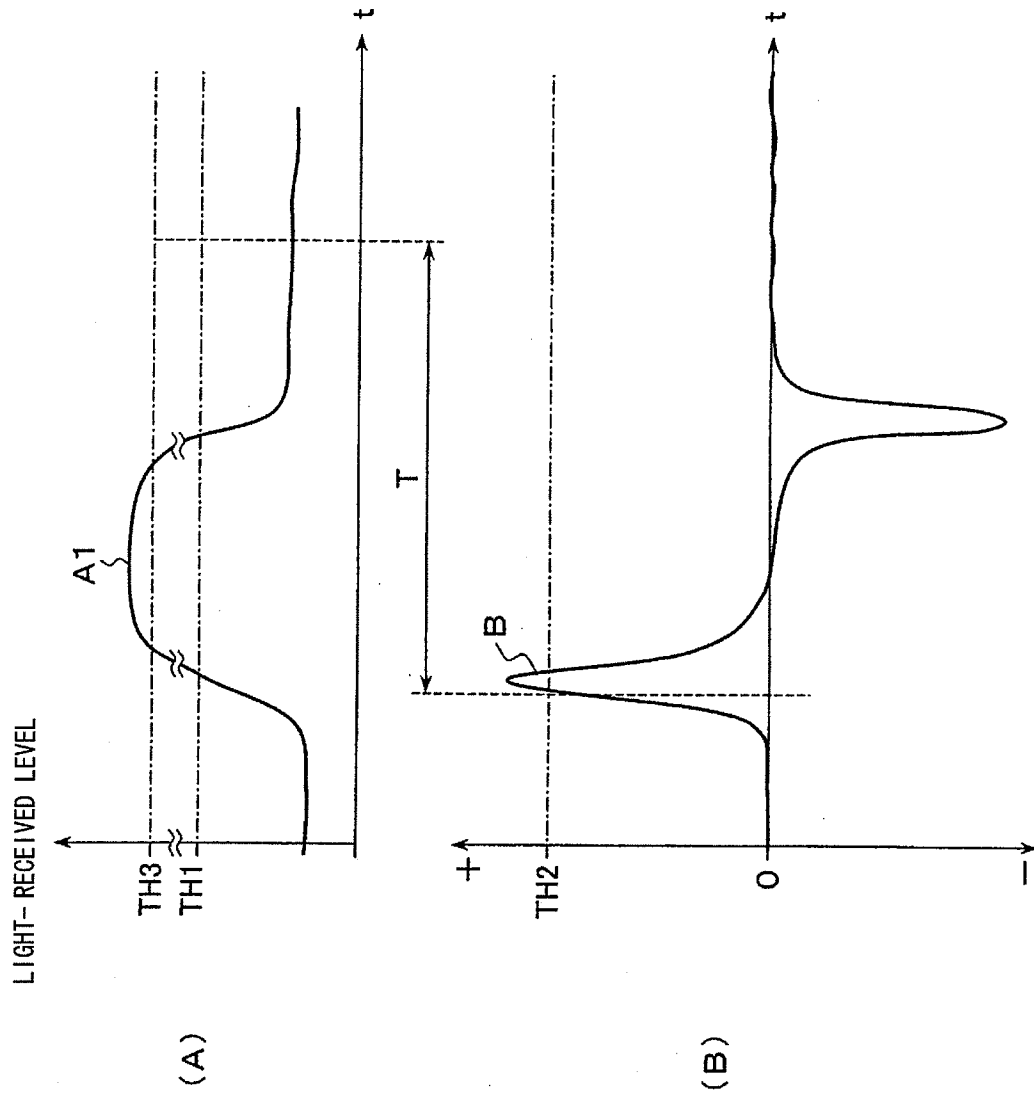


FIG. 29

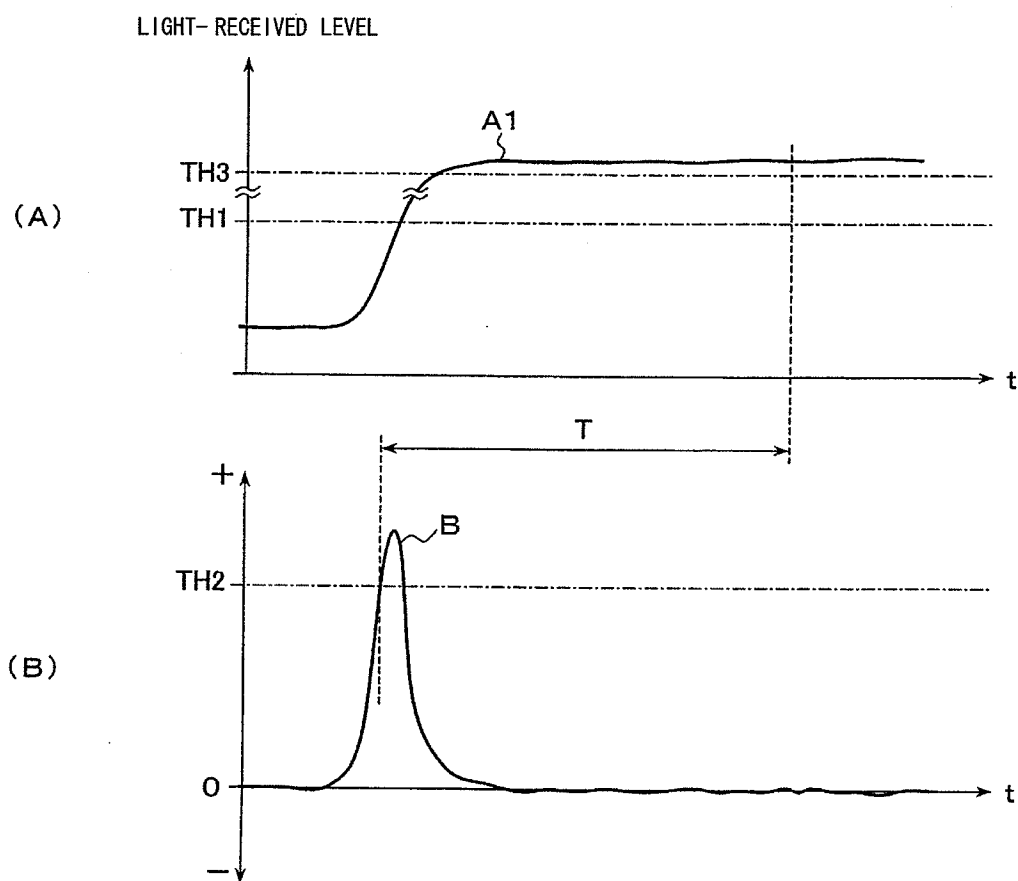


FIG. 30

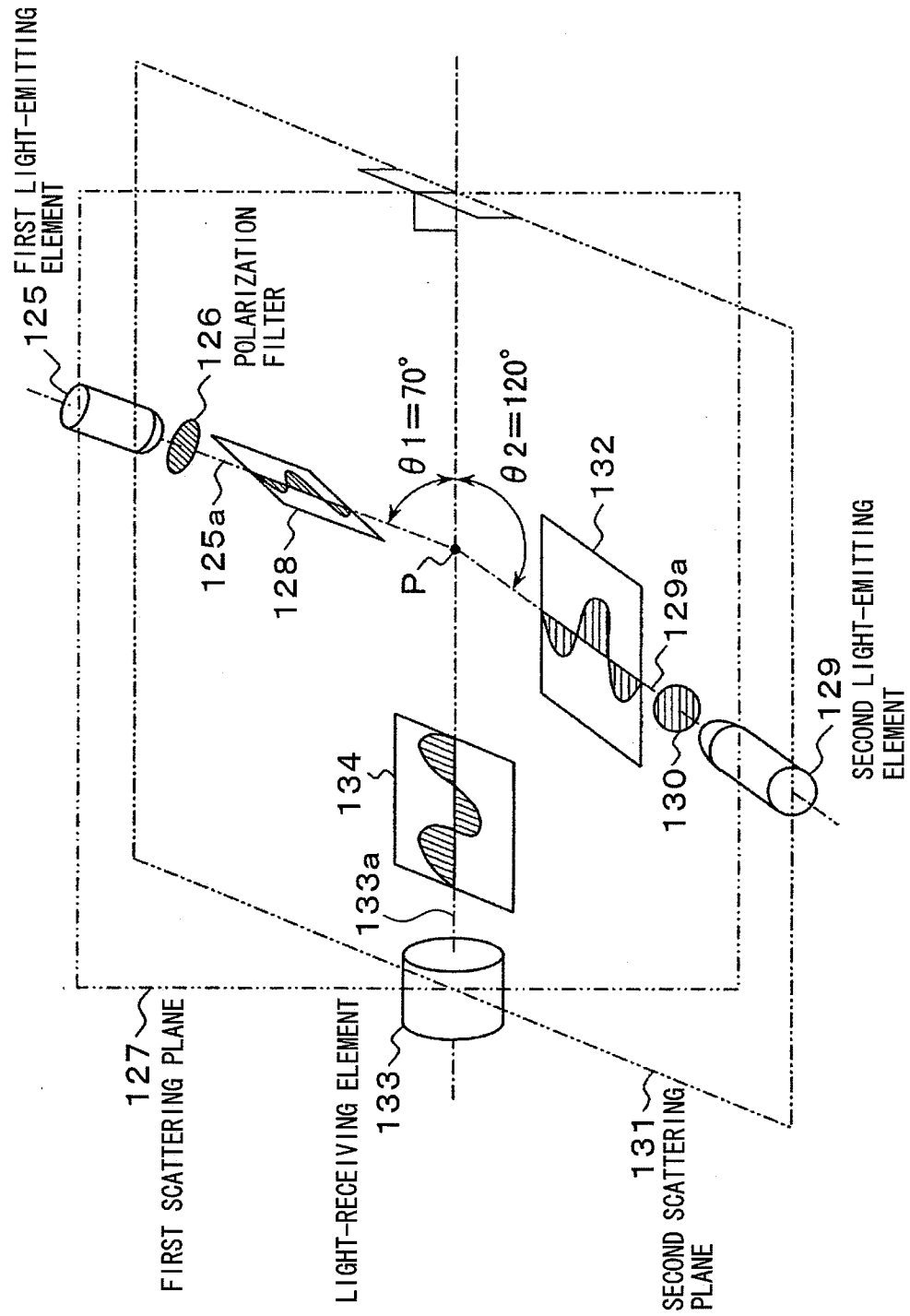


FIG. 31

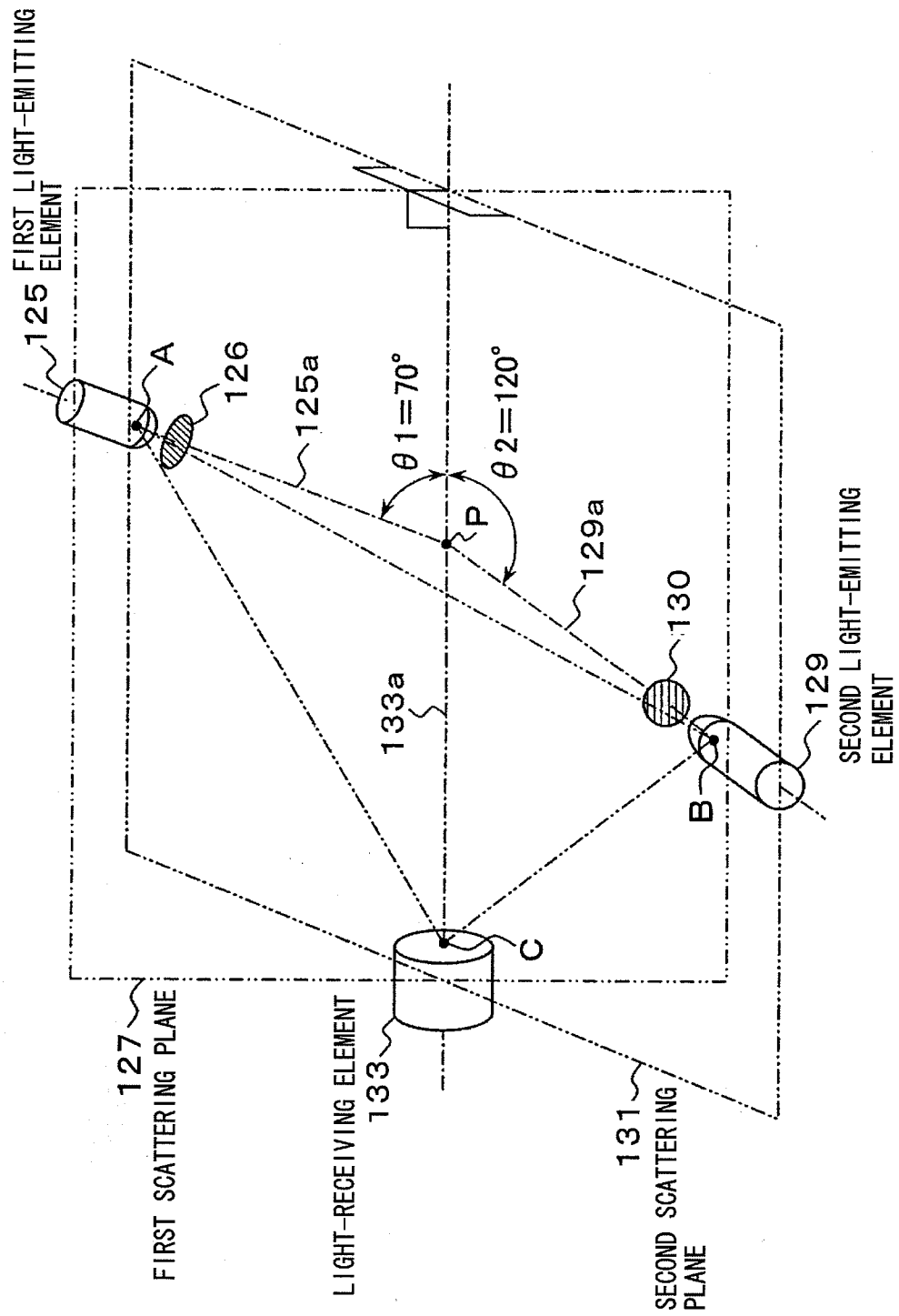
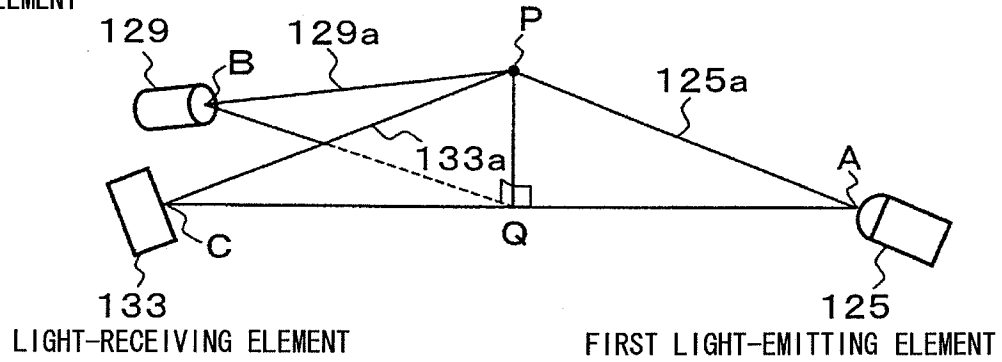
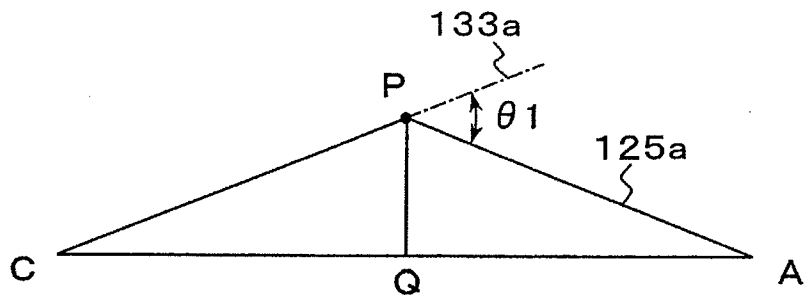


FIG. 32A

SECOND LIGHT-EMITTING
ELEMENT

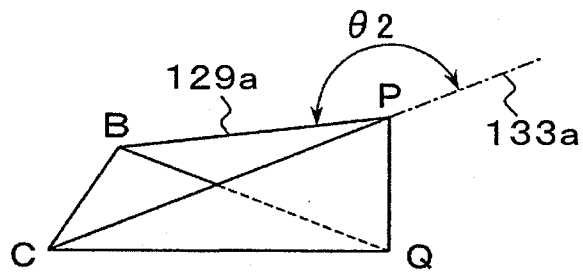
5

FIG. 32B



10

FIG. 32C



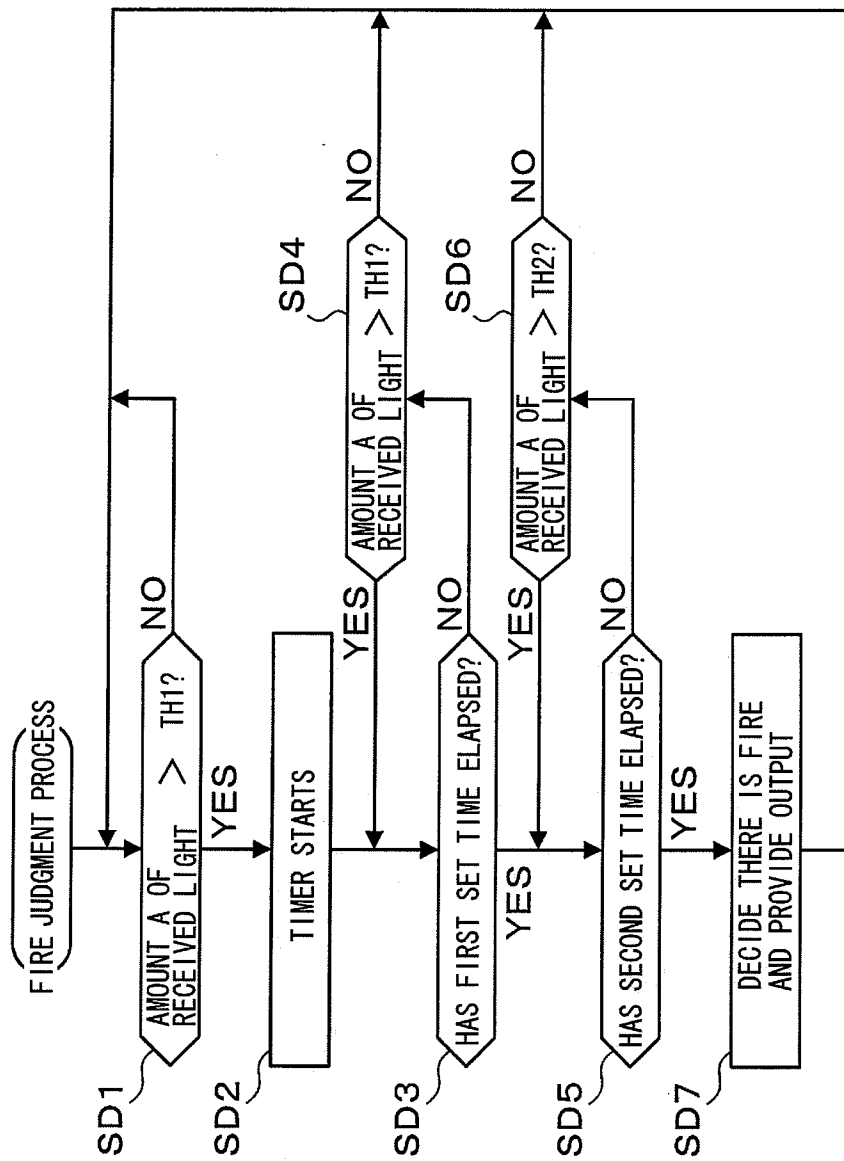
F I G . 3 3

SCATTERING ANGLE POLARIZATION ANGLE ϕ	70°		90°		120°	
	O°(HORIZONTAL)	90°(VERTICAL)	O°(HORIZONTAL)	90°(VERTICAL)	O°(HORIZONTAL)	90°(VERTICAL)
PAPER FILTER	130	200	60	115	45	65
KEROSENE	20	56	18	47	10	40
TOBACCO	80	280	20	190	17	105

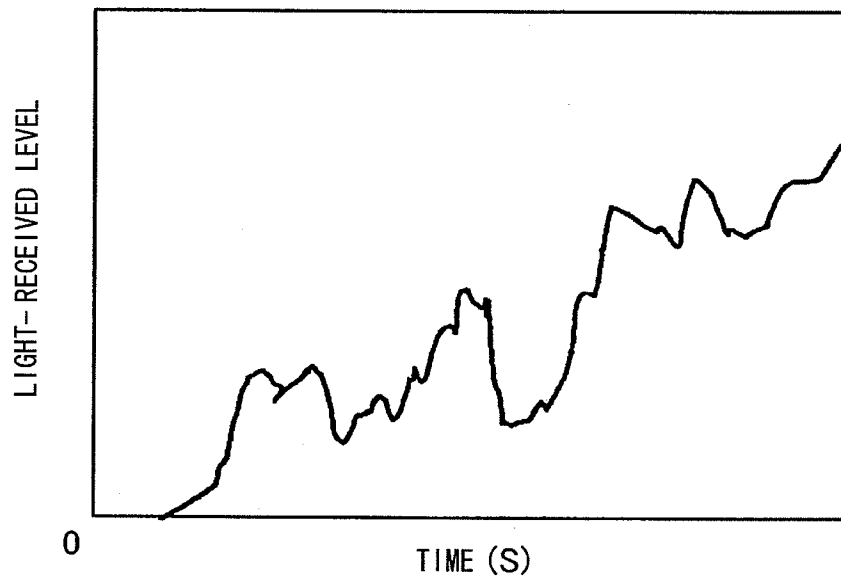
F I G . 3 4

TYPE OF COMBUSTION MATERIALS	AMOUNT A1 OF LIGHT- RECEIVED SIGNAL FOR FIRST LIGHT-EMITTING ELEMENT	AMOUNT A2 OF LIGHT- RECEIVED SIGNAL FOR SECOND LIGHT-EMITTING ELEMENT	RATIO $R=A1/A2$
PAPER FILTER	200	45	4.44
KEROSENE	56	10	5.60
TOBACCO	280	17	16.47

FIG. 35



F I G . 3 6



5

F I G . 3 7

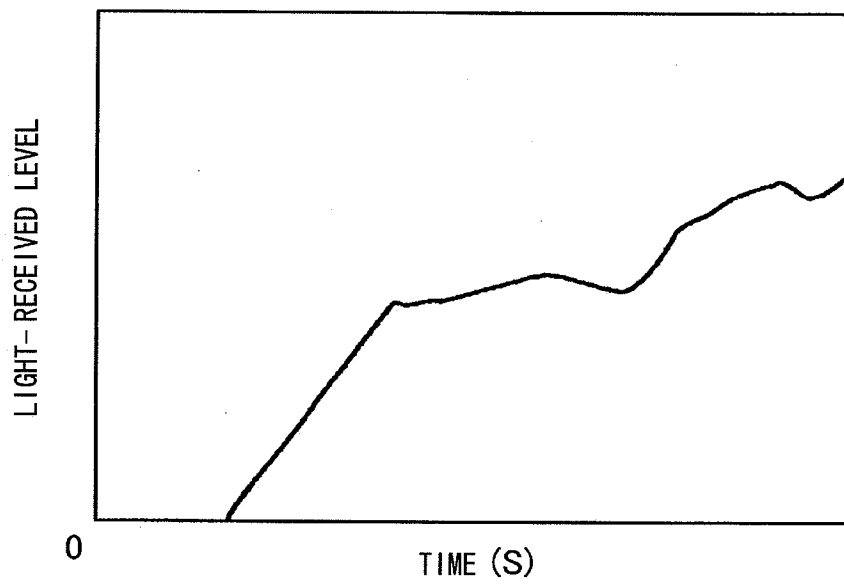
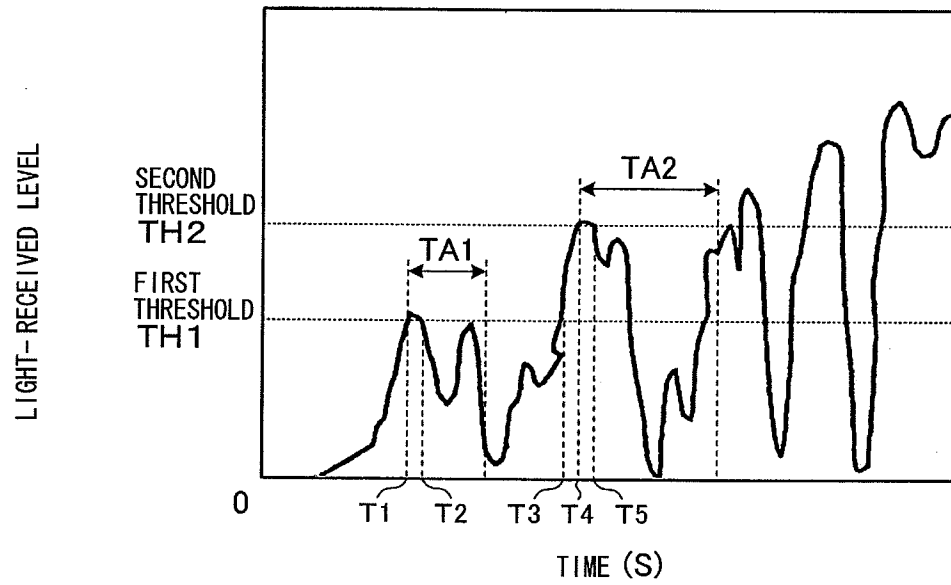


FIG. 38



5

FIG. 39

